

## CLAIMS

1-24 (Cancelled)

25. (Original) A method for classifying anomalies of a surface of a sample of a material suitable for use as a substrate for storage, display or electronic devices, comprising:

obtaining information concerning anomalies of the surface;  
processing the information using a first threshold to provide a first output;  
processing the information using a second threshold different from the first threshold to provide a second output; and  
analyzing the outputs and classifying the anomalies in at least one classification.

26. (Original) The method of claim 25, said analyzing comprising comparing the two outputs to determine whether the anomalies are scratches, area anomalies or point anomalies.

27. (Original) The method of claim 25, wherein the first threshold is higher than the second threshold, wherein one or more anomalies are classified as scratches when they are classified as scratches at the second threshold whether or not they are classified as scratches at the first threshold .

28. (Original) The method of claim 25, further comprising displaying only anomalies of sizes that exceed a predetermined threshold.

29. (Original) The method of claim 28, further comprising comparing size of each anomaly detected to the predetermined threshold.

30. (Original) The method of claim 25, wherein said classifying classifies the anomalies by means of their distribution over the surface.

31. (Original) The method of claim 30, wherein said classifying classifies the anomalies detected into two or more of the following three categories: scratches, areas and point defects.

32. (Original) The method of claim 31, wherein said classifying includes determining distances between the anomalies detected and grouping into groups the anomalies detected that are within a predetermined distance from one another.

33. (Original) The method of claim 32, wherein said classifying classifies the anomalies detected by grouping anomalies into a group only when the number of anomalies in the group exceeds a preset value.

34. (Original) The method of claim 32, wherein said determining also determines length and width of a boundary on the surface enclosing at least one group of anomalies detected, and said classifying classifies the anomalies in said at least one group as those forming a scratch when ratio of the length to the width of the boundary exceeds a preset value, and classifies the anomalies in said at least one group as those forming a area when ratio of the length to the width of the boundary does not exceed a preset value.

35. (Original) The method of claim 34, wherein said classifying classifies the anomalies in said at least one group as those forming a microscratch when the length of the boundary is less than a preset value.

36. (Original) The method of claim 32, wherein said classifying classifies the anomalies in a group as point anomalies when the number of anomalies in the group does not exceed a preset value.

37. (Original) The method of claim 25, further comprising displaying the anomalies detected.

38. (Original) The method of claim 37, wherein the displaying displays only anomalies of sizes that exceed a predetermined threshold.

39. (Original) The method of claim 38, further comprising comparing size of each anomaly detected to the predetermined threshold.

40 (Original) The method of claim 25, further comprising controlling a sample processing parameter in response to the at least one classification.

41-49. (Cancelled)